

What is claimed is:

1. A method of connecting a mobile device to a network having associated channels carrying encoded signals, the method comprising:
5 scanning selected subsets of channels until an encoded signal is identified in a channel; and
establishing a connection between the mobile device and the network associated with the channel carrying the identified encoded signal.
2. The method of claim 1, wherein the encoded signal is a GSM encoded signal and the
10 network associated with the GSM encoded signal is a GSM network.
3. The method of claim 1, including steps of:
initialising a timer after scanning a subset; and
waiting until expiry of the timer before scanning a next selected subset.
4. The method of claim 1, wherein a subsequently selected subset is distinct from a
15 previously selected subset.
5. The method of claim 4, wherein the subsequently selected subset is complementary to the previously selected subset.
6. The method of claim 1 further including the step of assembling a complete list of channels carrying encoded signals in all channels prior to establishing the connection.
- 20 7. The method of claim 6, wherein the step of assembling a complete list of channels carrying encoded signals includes scanning all channels in a frequency band to identify encoded signals.
8. The method of claim 6, wherein the step of assembling a complete list of channels carrying encoded signals includes scanning a subset of channels, complementary to the
25 selected subset, to identify the presence of the encoded signal.

9. The method of claim 6 wherein the step of establishing the connection includes registering the mobile device to an accessible network with an associated encoded signal having the strongest power.

10. The method of claim 6 wherein the step of establishing the connection includes the step of registering the mobile device for emergency service to the network with an associated encoded signal having the strongest power.

11. The method of claim 1 wherein the step of scanning a selected subset includes the steps of:

creating a list of potential channels corresponding to the channels in the selected subset carrying signals having power in excess of a predetermined threshold; and

analysing each of the entries in the list of potential channels to identify channels carrying encoded signals.

12. The method of claim 1, wherein a first selected subset of channels corresponds to even numbered channels in a frequency band, and a subsequently selected subset of channels corresponds to odd numbered channels in the frequency band.

13. A mobile device for connecting to an accessible wireless network transmitting an encoded signal in at least one of a plurality of channels in a frequency band, the mobile device having a transceiver, comprising:

a channel subset selector for selecting a subset of the channels in the frequency band and for controlling the transceiver to scan the channels in the selected subset;

an encoded signal detector for identifying channels scanned by the transceiver carrying encoded signals; and

a network device registrar for registering the mobile device on an accessible network associated with a channel carrying an identified encoded signal.

14. The mobile device of claim 13, further including a timer for initiating a delay if the encoded signal detector does not detect the encoded signal in the selected subset, and for

instructing the channel subset selector to select a subsequent subset of channels upon expiry of the delay.

15. The mobile device of claim 13, wherein the accessible wireless network transmits a GSM encoded signal, and the encoded signal detector is a GSM signal detector.

5 16. The mobile device of claim 13, wherein the encoded signal detector includes means for requesting a complementary subset of channels when a channel carrying an encoded signal is identified.

10 17. The mobile device of claim 13, wherein the encoded signal detector includes means for requesting a complete subset of channels when a channel carrying an encoded signal is identified.

18. The mobile device of claim 14, wherein the timer includes means for instructing the channel selector to select the subsequent subset upon expiry of the delay if the encoded signal detector did not identify a channel carrying an encoded signal.

15 19. The mobile device of claim 13, wherein the network device registrar includes means for registering the mobile device on the accessible network associated with the identified channel carrying the highest power encoded signal.

20. The mobile device of claim includes 13, wherein the network device registrar includes means for registering the mobile device on the network associated with the identified channel carrying the highest power encoded signal.

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